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Our Case No. 659/921
K-C Ref. No. 12,098.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Kato, et al.

Serial No. 10/041,693

Filing Date: January 7, 2002

For WAIST ELASTIC SYSTEM WITH
IMPROVED ELASTIC DECAY
PROPERTIES FOR A TRAINING
PANT

Examiner: Snow, Bruce Edward

Group Art Unit No. 3738

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**TRANSMITTAL OF
APPELLANT'S BRIEF TO THE
BOARD OF PATENT APPEALS AND INTERFERENCES**

Mail Stop Appeal Brief Patents
COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an appeal from the Final Rejection of November 7, 2003. A timely Notice of Appeal was filed February 9, 2004 (Certificate of Mailing February 5, 2004).

Applicants' Brief is due April 9, 2004, without extension.

Enclosed are –

(1) A copy of this TRANSMITTAL OF APPELLANT'S BRIEF TO THE BOARD
OF PATENT APPEALS AND INTERFERENCES;

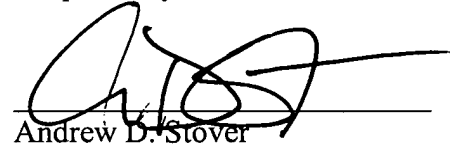
(2) Three copies of Applicant's APPELLANT'S BRIEF;

(3) A check for \$330.00, the fee under 37 CFR § 1.17(c) for filing an appeal
brief; and

(4) Return receipt postcard.

Please charge any additional fees that may be required to the Deposit Account of
Applicants' Attorneys, Brinks Hofer Gilson & Lione, Deposit Account 23-1925.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'A. Stover', is written over a horizontal line.

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Mail Stop Appeal Brief - Patents

Dear Sir:

This is an appeal from the Final Rejection dated November 7, 2003 of Claims 40-52,
which constitutes all of the claims pending herein.

(1) REAL PARTY IN INTEREST

The inventors assigned their interests in the invention to Kimberly-Clark Worldwide, Inc. The real party in interest is Kimberly-Clark Corporation, which is the corporate parent of Kimberly-Clark Worldwide, Inc.

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(3) RELATED APPEALS AND INTERFERENCES

Appellants note that an appeal (Appeal No. 1998-2817) was made in parent application 08/455,366, with a decision thereon mailed September 11, 2000. A copy of the decision is provided at Appendix B. There are no known appeals or interferences other than the appeal in the '366 application that will directly affect or be directly affected by or have a bearing on this appeal.

(4) STATUS OF CLAIMS

Claims 40-52 (Appendix A) are pending herein, all of which are appealed. Claims 1-39 were previously cancelled.

(5) STATUS OF AMENDMENTS

Applicants did not file any amendments after receipt of the Final Rejection. Accordingly, the claims are in the form as referred to in the Final Rejection of November 7, 2003.

(6) SUMMARY OF INVENTION

The present invention relates to an improved waist elastic system for a disposable absorbent pant garment, such as a child's training pant (Specification at page 8, lines 20-21). The improved waist elastic system provides a substantially uniform low tension along the peripheral border of the waist opening over a wide size range, a more comfortable fit, and improved ease of use by the child over an extended period of use (Specification at page 8, lines 20-24). The improvements are achieved, at least in part, by reducing the number of

layers of material that must be gathered by the elastic, for example by incorporating one or more elastic members in one layer of material (Specification at page 8, line 24 to page 9, line 3). In addition, the improvements can be achieved by reducing the maximum decay¹ of the waist elastic system at specific extensions over repeated cycles of extension and retraction, for example by reducing the surface area of joinder between the elastic member and the layer of material (Specification at page 9, lines 5-12; page 40, lines 9-21).

In one embodiment of the invention, a disposable absorbent pant includes a multi-layer chassis having an outer cover, a liner, and an absorbent structure disposed between the outer cover and the liner (Specification at page 9, line 14 to page 10, line 12; Figures 1 and 3)). The chassis is formed as a pant and includes a waist opening and a pair of leg openings (*id.*). One layer of the multi-layer structure includes an extension portion that extends beyond an edge of another layer of the multi-layer structure and peripherally surrounds the waist opening (Specification at 46, lines 13-24; Figure 3). A closed-loop waist elastic system, generally peripherally disposed about the waist opening, includes an elongate sleeve member defining an elongate passage therein and at least one elongate elastic member disposed within the elongate passage (Specification at page 10, line 27 to page 11, line 27). The elongate passage is formed by folding the extension portion upon itself and joining an end portion of the extension portion to a surface of the extension portion (Specification at 46, lines 13-24; Figure 3).

¹ Decay over the first three cycles is calculated by selecting an extension and subtracting the tension in grams at the first extension from the tension in grams at the third retraction (Specification at page 6, lines 9-10; page 40, lines 16-21).

In one embodiment, the elastic member is substantially freely moveable within the elongate passage (Specification at page 11, lines 8-10; page 13, lines 9-11; Figure 3). In another embodiment, the elastic member is intermittently joined to the elongate sleeve member (Specification at page 9, lines 5-12).

In various embodiments, the closed-loop waist elastic system has various magnitudes of decay at various extensions over the first three cycles of extension and retraction.²

1. For example, at an extension of 300 millimeters, the elastic system has a magnitude of decay of 48.95 to 86.77 grams as recited in dependent claim 46 (see Tables 1 and 2 (calculated differences between Extension 1 and Retraction 3 for specimens 4 (Table 1) and 1 (Table 2) respectively)).

2. At an extension of 275 millimeters, the elastic system has a magnitude of decay of 53.40 to 86.77 grams as recited in dependent claim 47 (see Tables 1 and 2 (calculated differences between Extension 1 and Retraction 3 for specimens 4 (Table 1) and 5 (Table 2) respectively)).

3. At an extension of 250 millimeters, the elastic system has a magnitude of decay of 51.17 to 80.10 grams as recited in dependent claim 48 (see Tables 1 and 2 (calculated differences between Extension 1 and Retraction 3 for specimens 4 (Table 1) and 1 (Table 2) respectively)).

4. At an extension of 225 millimeters, the elastic system has a magnitude of decay of 48.95 to 71.20 grams as recited in dependent claim 49 (see Tables 1 and 2

² Applicants note that these same ranges of decay for various extensions over three cycles were allowed in various dependent claims of related U.S. Patent No. 6,336,921 B1.

(calculated differences between Extension 1 and Retraction 3 for specimens 4 (Table 1) and 1 (Table 2) respectively)).

5. At an extension of 200 millimeters, the elastic system has a magnitude of decay of 31.15 to 64.53 grams as recited in dependent claim 50 (see Tables 1 and 2 (calculated differences between Extension 1 and Retraction 3 for specimens 4 (Table 1) and 1 (Table 2) respectively)).

(7) ISSUES PRESENTED

1. **Whether Claims 40-45 are unpatentable under 35 USC § 102 as being anticipated by U.S. Patent No. 3,756,878 to Willot.**

2. **Whether Claims 40-45, 51 and 52 are unpatentable under 35 USC § 103 over U.S. Patent No. 3,608,551 to Seijo in view of U.S. Patent No. 3,663,962 to Burger and U.S. Patent No. 3,370,590 to Hokanson et al.**

3. **Whether Claims 46-50 are unpatentable under 35 USC § 103 over U.S. Patent No. 3,756,878 to Willot in view of U.S. Patent No. 5,242,436 to Weil et al.**

4. **Whether Claim 51 is unpatentable under 35 USC § 103 over U.S. Patent No. 3,756,878 to Willot.**

(8) GROUPING OF CLAIMS

For the purposes of this appeal the claims do not stand or fall together. Applicants have divided the claims into three distinct Groups (I-III) as follows:

I. Claims 40-43, 45, 51 and 52. The Group I claims recite a multi-layer chassis including an outer cover, a liner, and an absorbent structure disposed between the outer cover and the liner, with one of the layers including an extension portion. A closed-loop waist elastic system includes at least one elongate elastic member disposed within an elongate passage formed by folding the extension portion upon.

II. Claim 44. The Group II claim recites that the at least one elastic member is substantially freely moveable within the elongate passage.

III. Claims 46-50. The Group III claims recite various magnitudes of decay at various extensions over the first three cycles of extension and retraction.

Reasons why these groups of claims are separately patentable are given below.

(9) ARGUMENT

1. Claims 40-45 are not anticipated by U.S. Patent No. 3,756,878 to Willot

In the Final Office Action, the Examiner rejected claims 40-45 as being anticipated by U.S. Patent No. 3,756,878 to Willot. Independent claim 40 recites “at least one elongate elastic member disposed within said elongate passage, said elongate passage formed by folding said extension portion upon itself and joining an end portion of said extension portion to a surface of said extension portion.” As defined in the specification, “‘elasticity’ refers to

the tendency of a material, or composite material, to recover its original size and shape after removal of the force causing a deformation” (page 6, lines 22-25).

In the Final Rejection (page 5), the Examiner specifically asserts that: materials used for a draw ties or draw ribbons *inherently* have some elasticity and, therefore, can be correctly termed ‘elongate elastic members.’ Just because the ties or ribbons are tied does not means that they have zero elasticity.

Applicants respectfully disagree. First, Applicants respectfully disagree with the Examiner’s assertion that all ties and/or ribbons are inherently elastic, as that term is defined in the specification. “The fact that a certain result or characteristic *may* occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic” (MPEP 2112). Rather, inherency is a question of fact. If there is no evidence that what the Examiner asserts to be inherent in the prior art, is in fact inherent, then a rejection based on that asserted inherency is improper. *In re Grasselli*, 713 F.2d 731, 218 USPQ 769, 775-76 (Fed. Cir. 1983).

To serve as an anticipation when the reference is silent about the asserted inherent characteristic, such gap in the reference may be filled with reference to extrinsic evidence. Such evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference and that it would be so recognized by persons of skill of ordinary art. [Citing cases].

Continental Can Co. USA Inc. v. Monsanto Co., 948 F.2d 1264, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991); *In re Robertson*, 169 F.3d 743, 49 USPQ 2d 1949, 1950-51 (Fed. Cir. 1999). A rejection in which no evidence is presented by the PTO to establish an asserted inherency is improper and will be reversed on appeal. *In re Robertson*, 49 USPQ2d at 1951. Indeed, a finding of anticipation by inherent disclosure is appropriate only when the

reference discloses prior art that must *necessarily* include the stated limitation. *Transclean Corp. v. Bridgewood Services, Inc.*, 290 F.3d 1346, 62 USPQ2d 1865, 1871 (Fed. Cir. 2002).

In the present case, the Examiner has not provided any evidence that ties or ribbons necessarily recover their original size and shape after removal of a force causing deformation. Indeed, a tie such as a piece of string or ribbon would *not* tend to recover its original size and shape *after* being deformed.

Second, and contrary to the Examiner's assertion (Final Rejection at page 5), Willot also fails to *expressly* disclose any "elongate elastic member" as recited in claim 40. Rather, Willot merely discloses draw ties, draw ribbons or fastening means 7, 8" (Col. 2, lines 19-20). Indeed, Willot further discloses that to secure the pant on the body of the user, "it is merely necessary to take hold of the ribbon 7 and/or 8 and withdraw it partly from its passage by sliding it inside the latter, so that the waist can be tightened" (Col. 2, lines 47-50). In this way, Willot actually teaches away from using an elastic member, since the elastic would tend to elongate within the passage, and would retract after release, thereby preventing the user from tightening the waist.

To support his position, the Examiner refers to a passage in Willot at in Col. 1, lines 34-37 (Final Rejection at 5):

Additionally, Willot teaches 'fastening means' which include the 'elastic element' taught by Willot in column 1, lines 34-37: 'The use of simple plastic sheets to retain absorbent napkins which may be fastened about the infant's waist is known. The waist portion of these sheets may be provided with an elastic element to provide tension.'

Applicants submit that this recitation to Willot actually *supports* Applicants' position.

In particular, the Examiner is reading that section out of context, and fails to recite the immediately following paragraph, which states that:

unfortunately, these disposable pants have not been successfully produced by a continuous operation. Moreover, complex and expensive installations have been required making the cost price of the article too high for one-time-use disposable articles" (Col. 1, liens 37-43) (emphasis added).

Accordingly, Willot actually teaches against the use of elastics. Moreover, there is absolutely no teaching in Willot that elastic elements used in the prior art napkin having a plastic sheet, as referred to in the background section of Willot, were or could be integrated into the disclosed structure of Willot, with its channels 5, 6.

For all of these reasons, claims 40-45 are not anticipated by Willot and should be passed to allowance.

2. Claims 40-45, 51 and 52 are not obvious over U.S. Patent No. 3,608,551 to Seijo in view of U.S. Patent No. 3,663,962 to Burger and U.S. Patent No. 3,370,590 to Hokanson

In the Final Office Action, the Examiner rejected claims 40-45, 51 and 52 as being obvious over Seijo in view of Burger and Hokanson. Applicants respectfully disagree for the following reasons.

a. Seijo Does Not Disclose or Suggest a "Liner" or "Elastic Member"

As a threshold matter, Seijo fails to disclose a multi-layer structure having an outer cover, a liner and an absorbent structure disposed therebetween. In particular, Siejo fails to

disclose a “liner,” or for that matter an absorbent structure disposed between an outer cover and a liner forming part of a multi-layer chassis, as recited in claim 40.

Applicants respectfully disagree with the Examiner’s assertion that the absorbent structure of Seijo inherently has a liner for contact with the body (Final Office Action at 4). “The fact that a certain result or characteristic *may* occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic” (MPEP 2112). In the present case, the Examiner has not provided any evidence that the liner is necessarily present. Indeed, just the opposite is true.

In particular, the illustrations of the absorbent structure, or napkin N, disclose that it is a single homogenous layer, *without* any liner or other component disposed between an upper surface thereof and the body of the user (FIGS. 3 and 4). Moreover, the Examiner cannot assert that a portion of the napkin N forms the liner, since claim 40 calls for a *multi-layer* chassis comprising an outer cover, a liner and an absorbent structure.

In addition, Seijo discloses a panty to hold a napkin against the body of the user – the napkin merely rests on the panties and is not incorporated into or attached to the chassis in any way (*see e.g.*, Col. 1, lines 1-48; FIG. 3). In this way, the panties can be reused after the napkin is discarded. Accordingly, Seijo is completely devoid of disclosure or suggest of incorporating an absorbent structure between layers of a *chassis*. Indeed, Seijo teaches against such a construction, since the napkin could not be replaced, and it would not be disposed on top of the elastic member, which biases the napkin against the body of the user.

Finally, as admitted by the Examiner, Seijo also fails to disclose or suggest an elongate elastic member disposed within a passage (Final Office Action at 4 “it is unclear whether Seijo uses an elongate elastic member disposed within said passage.”)

b. Seijo, Burger and Hokanson Do Not Disclose All of the Claim Limitations

To supply the various deficiencies of Seijo, the Examiner cites Burger and Hokanson. Burger, however, does not disclose or suggest a multilayer chassis including an outer cover, a liner and an absorbent structure. Instead, and recognizing that Seijo may *not* inherently disclose the liner, the Examiner states that it would have been obvious to substitute the absorbent pad and liner of Hokanson for the absorbent structure of Seijo (Final Office Action at 5). Applicants respectfully disagree.

Moreover, even if the absorbent structure of Hokanson were substituted for the absorbent structure of Seijo, the combined structure still would not form a multi-layer chassis having an absorbent structure disposed between an outer cover and a liner. As explained, above, Seijo discloses an elastic tape K to bias a napkin against the body of the user and above the *chassis* (Seijo at FIG. 1, Col. 1, lines 63-72 (chassis formed from portions A, B, C, D and E)). The napkin is not attached to and does not form a part of the chassis. Accordingly, even if the absorbent structure of Hokanson were substituted for the pad of Seijo, the combined structure does not meet all of the limitations of claim 40, since the absorbent structure and any liner component of Hokanson would not form part of the multi-layer chassis.

c. There is No Suggestion to Combine Seijo and Hokanson

In addition to failing to satisfy all of the claim limitations, there also is absolutely no suggestion to substitute the absorbent structure of Hokanson for the structure of Seijo. In particular, Seijo teaches that the absorbent structure must be relatively flexible and thin, such that it can be saddled on the elastic tape K, “thereby fitting the napkin (N) sufficiently close to the necessary parts of human body without leaving at M any substantial hollow space above the napkin as shown in FIG. 3 and 4, and therefore absorbing menstrual blood immediately and completely” (Col. 2, lines 40-45). In contrast, the absorbent pads of Hokanson are relatively bulky and would not conform to the body of the user as required by Seijo if supported by an elastic band along a middle portion (see FIGS. 1 and 2; with respect to the embodiment of FIG. 2 (applied by the Examiner), Hokanson discloses that the wrapper or cover 20 is “for enclosing a *bulky* absorbent dispersible fibrous pad”). Indeed, the Examiner even asserts that it would have been obvious to substitute “the absorbent structure of Hokanson et al for that of Seijo to enclose the improved *bulky* absorbent known in the art” (Final Rejection at 5 (emphasis added)). The substitution of the pad from Hokanson into the garment of Seijo, however, would render Seijo unsatisfactory for its intended purpose. MPEP 2143.01 *citing In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

For these reasons, the Examiner has failed to make out a *prima facie* case of obviousness and the rejections of claims 40-45 should be withdrawn.

d. There is No Disclosure or Suggestion of the Elastic Member Being Substantially Freely Movable Within an Elongate Passage

Applicants further note that with respect to claim 44, which has been separately grouped,³ none of Seijo, Hokanson or Burger disclose or suggest an elastic member “substantially freely movable within said elongate passage.” To the contrary, the Examiner admits that Seijo is silent as to whether there is even an elastic element present (Final Rejection at 4), and Hokanson discloses snaps for securing the garment about the body of the user (see Hokanson at Figure 2). Burger, however, discloses that the elastic ribbons 10 “are stitched” to the fabric web 12 along the length thereof (Col. 2, lines 68-75). The ribbons may also be attached along their length with adhesive (Col. 2, line 74 to Col. 3, line 28). Since the references, even if combined, fail to disclose or suggest all of the limitations of claim 44, that claim should be passed to allowance. MPEP 2143.03 (All claim limitations must be taught or suggested to establish a prima facie case of obviousness, citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)).

In view of the complete lack of evidence of any teachings or suggestions of each and every element of the claims, and further in view of the disclosure related to these elements in Appellants’ specification, claims 40-45, 51 and 52 are not obvious under 35 USC § 103 over Seijo in view of Burger and Hokanson, and notice to that effect is earnestly solicited.

³ Group II Claim 44 is separately patentable from claims 40-43, 45, 51 and 52 with respect to the rejection over Seijo, Burger and Hokanson, but stands or falls with the Group I claims 40-43, 45, 51 and 52 with respect to the rejection over Willot.

3. Claims 46-50 are not obvious over U.S. Patent No. 3,756,878 to Willot in view of U.S. Patent No. 5,242,436 to Weil et al.

In the Final Office Action, the Examiner rejected claims 46-50 as being obvious over Willot in view of Weil. While the Examiner admits that Willot is “silent in regards to the magnitude of decay of the waist elastic system” (Final Rejection at 3), as it necessarily must since no elastics are disclosed, the Examiner asserts that Weil teaches that decay is undesirable and that it would have been obvious to keep the elastic decay of the closed-loop system of Willot to a minimum (Final Rejection at pages 3-4). Realizing that the decay values claimed by Applicant are not disclosed by Weil, the Examiner goes on to state that the use of such values “solves no stated problem and would have been an obvious matter of design choice within the skill of the art” (Final Rejection at page 4). Applicants respectfully disagree with the Examiner on all counts of his analysis.

Applicants note that claims 46-50, which have been separately grouped (Group III), recite various magnitude of decay values for the closed-loop waist elastic system recited in claim 40. These decay values, none of which are disclosed or suggested by the cited references, provide significant advantages and are separately patentable from claims 40-45, 51 and 52, as further explained below.

a. Weil and Willot Do Not Disclose All of the Claim Limitations

As a threshold matter, Weil and Willot fail to disclose all of the limitations of the claims. In particular, as set forth above, Willot fails to disclose an elastic member disposed in an elongate passage to form a closed-loop waist elastic system. Weil, however, fails to disclose or suggest a “closed-loop waist elastic system” as recited in claim 40 (*see*

Specification at page 13, lines 11-15 (a “closed-loop system” includes the elastic and chassis member being joined at their ends)).⁴

Rather, Weil teaches the use of a “dual tension fastening system compris[ing] a primary fastening system for forming a side closure and a waist closure system for forming a waist closure” (Col. 2, lines 47-50). Neither the primary fastening system nor the waist closure system is a “closed-loop system,” but rather include discrete lengths of elastic material and attachment components, none of which surround the periphery of the waist opening with opposite ends joined together (see Col. 2, line 47 to Col. 3, line 21). For example, in one embodiment, the primary fastening system includes a tape member and a landing member to provide a “variable positioning side closure” (Col. 2, lines 54-59). The waist closure system includes an elasticized waist band 34, 76 having spaced apart and unjoined end portions 75, and attachment components aligned with the elasticized waistband (Col. 2, lines 65-68; Figure 1). In one embodiment, the garment further includes elasticized side panels (Col. 3, lines 8-15), which again have discrete lengths. Accordingly, if the waist elastic system, or even the elastic elements, of Weil were substituted into Willot, it would not constitute a “closed-loop system.”

Accordingly, the rejection should be withdrawn and claims 40/46-50 passed to allowance.

⁴ The Board of Patent Appeals and Interferences in Appeal No. 1998-2817 agreed that “Weil does not teach or support a closed-loop elastic waist system” (Decision at page 14).

b. There is No Suggestion to Combine Willot and Weil

There is no suggestion to combine Willot and Weil as asserted by the Examiner.

Importantly, Weil actually teaches against a “closed-loop system” as recited in claims 40/46-

50. In particular, Weil discloses that:

it has been found that absorbent articles having elasticized waistbands also have a tendency to sag/gap and slide/slip during use. Further, the elasticized waistband feature has a tendency to rollover or roll-in at the front of the diaper resulting in a lack of fit about the waist of the wearer. (Col. 1, lines 63-67).

To solve this problem, Weil teaches the use of the dual tension fastening system described above. In particular, as stated by Weil, “it is an object of [the Weil invention] to provide a fastening system that provides [a] sustained dynamic fit for the elasticized waistband, . . . [and] to provide a waist closure system that maintains/creates lateral tension through at least a portion of the elasticized waistband to provide sustained dynamic fit” (Col. 2, lines 22-29). Therefore, while Weil discloses the disadvantages of known waist elastic systems in terms of sag/gap and slide/slip during use, Weil teaches that such problems are solved by providing a dual tension fastening system (using 2 pairs of adjustable fasteners), neither of which is a closed-loop system. Weil does *not* disclose or suggest that the problems of sag/gap/slide/slip are solved by forming a closed-loop system and reducing the decay in such a system as recited in claims 40/46-50.

Conversely, as set forth above, Willot teaches against using any elastic member in the waist region. Moreover, substitution of the only the discrete lengths of elastic (which do not surround the user) as taught by Weil into the structure of Willot would not provide a closed-loop elastic system and would be deficient in that the garment would not be securely held to

the user. Indeed, such a substitution would render Willot unsatisfactory for its intended purpose (MPEP 2143.01).

In this regard, it is important to remember that the Examiner must read Weil as a whole. Weil teaches the use of a releasable dual fastener system having discrete lengths of elastic and adjustable fasteners to solve the problem of sag/slip, etc. Therefore, it is improper to take only the teaching of “elastic elements” in Weil, and to thereafter modify the construction of Willot with hindsight analysis in view of Applicants claims.

In summary, there simply is no suggestion to combine Willot and Weil as set forth by the Examiner, and claims 40/46-50 should be passed to allowance.

c. The Claimed Decay Values are Not An Obvious Matter of Design Choice⁵

Applicants further note that the Examiner’s reference to Weil for the proposition that it is desirable to keep creep of the *elastic members* to a minimum does not address the claims at issue. In particular, the claims recite decay of the “waist elastic system,” which includes the elastic member *and* the elongate sleeve member disposed thereabout (see Claim 40).

⁵ Applicants note that, in Appeal No. 1998-2817 (Appendix B), the Board of Patent Appeals and Interferences found that it would have been obvious to provide an elastic waist system of U.S. Patent No. 4,639,949 to Ales with the claimed decay values in view of Weil. Applicants submit that the Examiner correctly refrained from citing Ales against the pending claims, for at least the reason that Ales fails to disclose joining an end portion of an extension portion to itself. While Ales discloses folding a portion over an elastic member (Figure 6), the portion is not joined to itself. Moreover, Ales discloses that folding a layer over the elastic member is only suitable for garments that “do not require inner and outer layers as in the panty 10” (Col. 5, lines 44-48; FIG. 6). Indeed, in the multiple layer structures of Ales, the elastic member is trapped between two layers, not in a passage formed by an extension portion of one of the layers being folded over on itself (Col. 4, lines 49-55; FIGS. 4-5). Finally, Applicants submit that the decay values presently recited provide unexpected results over the prior art, including Weil, for the reasons set forth herein.

While keeping the creep of the elastic members to a minimum may help reduce decay of the overall system, other factors including the construction of the sleeve member and the attachment of the elastic member also play a significant role (Specification at page 9 lines 5-12). For example, the elastic member may be substantially unconnected along its length, or connected to only one layer of material (*id.*; Specification at page 43, lines 4-10).

In addition, Weil fails to disclose any specific values of the magnitude of decay, but rather discloses only generally the objective of minimizing the creep of the elastic members. While the Examiner attempts to circumvent the requirement of all limitations being disclosed or suggested in the references by referring to design choices, that strategy is deficient on several grounds.

As a threshold issue, the Examiner has not presented any line of reasoning as to why an artisan of ordinary skill would have been motivated to make the distinctive changes and modifications required to derive the invention called for by Appellant's claims. The Examiner's mere assertion that the claimed configuration "would have been an obvious matter of design choice within the skill in the art" presents only a conclusion, rather than a reason for making such a modification, or a suggestion that the claimed results could thereby be achieved. Instead, the Examiner has impermissibly employed the Applicants' disclosure as a road map for picking and choosing ranges of decay values that are neither taught nor suggested in the prior art. It is well settled that an obviousness rejection based on such hindsight analysis is improper.

Furthermore, and contrary to the Examiner's assertions (Final Rejection at 4), Applicants have provided numerous references to the criticality of the claimed decay values

in the specification. For example, Applicants explained that “another important factor in providing a substantially uniform low tension over a wide size range, a more comfortable fit, and improved ease of use, is the maximum magnitude of decay, measured in grams of tension, at a specific extension over the first three cycles” (Specification at page 40, lines 9-21). Moreover, Applicants tested multiple samples of a first and second embodiment of the invention, and compared the decay values with the decay values for multiple specimens of seven commercially available products (Specification at page 41, lines 4-13). The extensive testing is reflected in the thirteen tables of data provided in the Specification (pages 18-30). The commercially available products that were tested are described in the Specification at pages 15-16, and include a Pampers® Trainers® product manufactured by Procter and Gamble, the assignee of the Weil patent (Specification at page 16, lines 1-4).

As can be seen at Table 13, the decay values for the embodiments of the present invention are “*significantly lower* than the decay values at 300 millimeters for samples 1-7 [commercial products]” (page 41, lines 4-10 (emphasis added)). The difference in decay values for other extensions were equally significant (see Table 13). This objective evidence of non-obviousness, which shows the failures of others as well as unexpected results, dictates a finding of patentability. It is important to note that the comparisons of Tables 1-13 are *direct* comparisons of the *closest* prior art with the claimed invention, including the measures of decay of the elastic system. See MPEP 716.02(e) (citing *In re Holladay*, 584 F.2d 384, 199 USPQ 516 (CCPA 1978); *Ex Parte Humber*, 217 USPQ 265 (Bd. App. 1961)). In contrast, the general discussion of creep in Weil is not even directed to a closed-loop *system*, but rather only to the individual elastic members, and is therefore not applicable to the claims

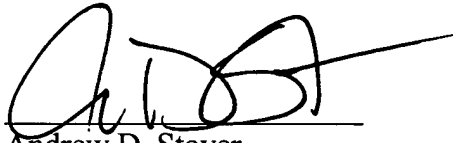
at issue. As such, the claimed ranges of decay, which do not even come close to overlapping with the decay of the known commercial products, strongly evidences the criticality of the ranges, and obviates against any suggestion that they can be achieved simply by design choice.

For these additional reasons, claims 40/46-50 should be allowed.

4. Conclusion

The cited references, either alone or in combination, do not provide a valid basis for an anticipation or *prima facie* obviousness rejection of the present claims. Accordingly, Appellants submit that the present invention is fully patentable over Willot, alone or in combination with Weil, and also over Seijo in combination with Burger and Hokanson, and the Examiner's rejections should be REVERSED.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'A. Stover', written over a horizontal line.

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APPENDIX A

Claims 40-52 are presently pending as follows:

40. A disposable absorbent pant comprising:

a multi-layer chassis including an outer cover, a liner, and an absorbent structure disposed between said outer cover and said liner, said outer cover having a first surface facing said liner and a second surface opposite said first surface, said chassis formed as a pant and including a waist opening and a pair of leg openings, one layer of said multi-layer structure including an extension portion extending beyond an edge of another layer of said multi-layer structure and peripherally surrounding said waist opening; and

a closed-loop waist elastic system including an elongate sleeve member defining an elongate passage therein, said waist elastic system being generally peripherally disposed about said waist opening, and at least one elongate elastic member disposed within said elongate passage, said elongate passage formed by folding said extension portion upon itself and joining an end portion of said extension portion to a surface of said extension portion.

41. The disposable absorbent pant of claim 40, wherein said extension portion is formed from said outer cover.

42. The disposable absorbent pant of claim 41, wherein said surface of said extension portion to which said end portion is joined comprises said second surface of said outer cover.

43. The disposable absorbent pant of claim 40, wherein said one layer comprises a nonwoven layer.

44. The disposable absorbent pant of claim 40, wherein said at least one elastic member is substantially freely movable within said elongate passage.

45. The disposable absorbent pant of claim 40, wherein said at least one elastic member is intermittently joined to said elongate sleeve member at spaced apart zones.

46. The disposable absorbent pant of claim 40, wherein said closed-loop waist elastic system has a magnitude of decay of 48.95 to 86.77 grams at an extension of about 300 millimeters over the first three cycles.

47. The disposable absorbent pant of claim 40, wherein said closed-loop waist elastic system has a magnitude of decay of 53.40 to 86.77 grams at an extension of about 275 millimeters over the first three cycles.

48. The disposable absorbent pant of claim 40, wherein said closed-loop waist elastic system has a magnitude of decay of 51.17 to 80.10 grams at an extension of about 250 millimeters over the first three cycles.

49. The disposable absorbent pant of claim 40, wherein said closed-loop waist elastic system has a magnitude of decay of 48.95 to 71.20 grams at an extension of about 225 millimeters over the first three cycles.

50. The disposable absorbent pant of claim 40, wherein said closed-loop waist elastic system has a magnitude of decay of 31.15 to 64.53 grams at an extension of about 200 millimeters over the first three cycles.

51. The disposable absorbent pant of claim 40, wherein said outer cover comprises a liquid-permeable layer and a liquid-impermeable layer.

52. The disposable absorbent pant of claim 40 wherein said at least one elongate elastic member is completely encapsulated within said elongate passage around the entire periphery of said waist opening.

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARGARET A. KATO and FRANK S. GLAUG

Appeal No. 1998-2817
Application No. 08/455,366

ON BRIEF

MAILED

SEP 11 2000

PAT. & T.M. OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Before McCANDLISH, Senior Administrative Patent Judge and
ABRAMS and GONZALES, Administrative Patent Judges.

GONZALES, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the examiner's final rejection of claims 1, 3 through 7, 9 through 13, 15 through 19, 21 through 26 and 28 through 36. These claims constitute all of the claims pending in this application.

We AFFIRM and enter new rejections pursuant to 37 CFR § 1.196(b).

The specification describes a waist elastic system 60 for children's disposal absorbent training pants wherein the waist elastic system may be formed separate (Figure 2) or unitary (Figure 3) with the training pants. See specification, pp. 12 and 46. Two embodiments of the separate system shown in Figure 2 are described in detail, both of which include a sleeve member 62, defining an elongate passage 64, and an elastic member 66. We are informed by the specification (pp. 12-13) that the first embodiment (hereinafter referred to as "Embodiment 1") is constructed by providing two lengths of elastic members having respective relaxed lengths of about 14.29 cm (5-5/8 inches)¹ and two lengths of nonwoven web having respective relaxed lengths of about 36.83 cm (14.5 inches).² Both elastic members are extended about 36.83 cm and placed on a respective nonwoven web length, with the ends of the elastic members being joined to the ends of

¹ The specification states (p. 13, l. 2) that this is "one-half of the relaxed circumferential length." Presumably, the appellants mean one-half of the relaxed circumferential length of the elastic member 66. Compare p. 12, ll. 24-26.

² Each elastic member is described as being made of natural rubber having a thickness of 7 mils and a width of .79 cm. Each nonwoven web is described as being made of bicomponent fibers in a side-by-side orientation, in which the fibers are present in the amount of about 50 percent polypropylene fibers to about 50 percent polyethylene fibers and having a basis weight of about 17 gm². Specification, p. 12.

their respective nonwoven web length.³ Each nonwoven web length is then C-folded over its respective elastic member. The two resulting composites, comprising an elastic member and a nonwoven web length, are joined at their ends to form a closed-loop elastic waistband with the elastic member being freely movable within the sleeve between their ends.

The second embodiment (hereinafter referred to as "Embodiment 2") is described (specification, p. 31) as

. . . similar to Embodiment 1, except that in Embodiment 2 the elastic member is selectively intermittently joined to the elongate sleeve member. The intermittent pattern of joining is a pattern of 1.27 centimeter (0.5 inch) wide adhesive zones separated by 1.27 centimeter wide zones with no adhesive.

The claims on appeal are directed to a disposal absorbent pant including a closed loop waist elastic system (claims 19, 21 through 26 and 28 through 36) and to a closed loop waist elastic system per se (claims 1, 3 through 7, 9 through 13, 15 through 18). An understanding of the claimed invention can be derived from a reading of exemplary claim 1, which reads as follows:

³ The description of the relaxed circumferential length of the closed-loop elastic waistband as being "about 73.66 centimeters (29 inches)" (p. 13, ll. 16-17) is believed to be a mistake, since it is inconsistent with the elastic members being extended about 36.83 cm when placed on the nonwoven webs. See, also, footnote 1, supra.

1. A closed loop waist elastic system for a disposable absorbent pant comprising a chassis including a front panel, a back panel, a crotch panel and an absorbent structure on said crotch panel, said front panel and said back panel being selectively joined to form a waist opening and a pair of leg openings, said closed loop waist elastic system comprising:

an elongate sleeve member defining an elongate passage therein, and being generally peripherally disposed about said waist opening, and

an elongate elastic member disposed within said elongate passage,

said closed loop waist elastic system having a maximum magnitude of decay of less than about 76.98 grams in an extension range of about 300 millimeters over the first three cycles.^{4,5}

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

| | | |
|--------------------|-----------|---------------|
| Ales et al. (Ales) | 4,639,949 | Feb. 03, 1987 |
| Weil et al. (Weil) | 5,242,436 | Sep. 07, 1993 |

The following rejections are before us for review:

claims 1, 3 through 7, 9 through 13, 15 through 19, 21 through 26 and 28 through 36 stand rejected under 35 U.S.C. § 112, first paragraph, as being based on a specification which fails to provide an enabling disclosure;

⁴ "Decay" is defined in the specification (p. 6) as "a loss of tension at a specific extension over a selected number of cycles."

⁵ A "cycle" is defined in the specification (p. 6) as "an extension of an elastic member or elastic structure, and a retraction of the elastic member or elastic structure following the removal of the force causing the extension." Technically, the language "the first three cycles" in each independent claim lacks proper antecedent basis.

claims 1, 3 through 7, 9 through 13, 15 through 19, 21 through 26 and 28 through 36 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the appellants regard as the invention;

claims 1, 3 through 7, 9 through 13, 15 through 19, 21 through 26 and 28 through 36 stand rejected under 35 U.S.C. § 103 as being unpatentable over Weil; and

claims 1, 3 through 7, 9 through 13, 15 through 19, 21 through 26 and 28 through 36 stand rejected under 35 U.S.C. § 103 as being unpatentable over Ales in view of Weil.

The full text of the examiner's rejections and response to the arguments presented by the appellants appears in the final rejection (Paper No. 8) and the answer (Paper No. 14), while the complete statement of the appellants' arguments can be found in the brief (Paper No. 13).

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the

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respective positions articulated by the appellants and the examiner. As a consequence of our review, we have made the determinations which follow.

35 U.S.C. § 112, Second Paragraph

We will not sustain the rejection of claims 1, 3 through 7, 9 through 13, 15 through 19, 21 through 26 and 28 through 36 under 35 U.S.C. § 112, second paragraph.

The second paragraph of 35 U.S.C. § 112 requires claims to set out and circumscribe a particular area with a reasonable degree of precision and particularity. In re Johnson, 558 F.2d 1008, 1015, 194 USPQ 187, 193 (CCPA 1977). In making this determination, the definiteness of the language employed in the claims must be analyzed, not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. Id.

The examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. § 112, second paragraph, is whether the claims meet the threshold requirements of clarity and precision, not whether more suitable

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language or modes of expression are available. Some latitude in the manner of expression and the aptness of terms is permitted even though the claim language is not as precise as the examiner might desire. If the scope of the invention sought to be patented cannot be determined from the language of the claims with a reasonable degree of certainty, a rejection of the claims under 35 U.S.C. § 112, second paragraph, is appropriate.

With this as background, we analyze the specific rejection under 35 U.S.C. § 112, second paragraph, made by the examiner of the claims on appeal. Specifically, the examiner stated (answer, p. 4):

All claims are rejected under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. MPEP § 706.03(f). There is no mention as to the length (or circumference) of the elongate elastic member. No recitation of the length makes the claims ambiguous. For example, a 1,000,000 mm elastic member extended 300 mm over three cycles would produce little or no stress in the elastic member, therefore, little decay would probably occur. However, a 10 mm elastic member extended 300 mm would be greatly over stressed and most likely would tear in half. In addition to the length, the width, thickness, and type of elastic would all produce an affect on the results.

Claim 33 is ambiguous as to structure.

We agree with the appellants' argument (brief, p. 7) that the claims under appeal do fully apprise those of ordinary skill

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in the art of the scope of the invention claimed, and thus satisfy the requirement of 35 U.S.C. § 112, second paragraph, to particularly point out and distinctly claim the subject matter which the appellants regard as the invention. In this regard, we note, as did the appellants, that breadth of a claim is not to be equated with indefiniteness. See In re Miller, 441 F.2d 689, 693, 169 USPQ 597, 600 (CCPA 1971). Additionally, we see no basis for the examiner to conclude that the claims are incomplete for omitting essential structural cooperative relationships of elements. MPEP § 706.03(f) cited by the examiner to support his position no longer exists. However, the second paragraph of MPEP § 2172.01 does state that

. . . a claim which fails to interrelate essential elements of the invention as defined by applicant(s) in the specification may be rejected under 35 U.S.C. 112, second paragraph, for failure to point out and distinctly claim the invention. See In re Venezia, 530 F.2d 956, 189 USPQ 149 (CCPA 1976); In re Collier, 397 F.2d 1003, 158 USPQ 266 (CCPA 1968).

Nevertheless, the examiner has failed to cite any passage of the specification or in other statements of record that would establish that any essential element or interrelationship between essential elements has been omitted from the claims under appeal. While the claims are certainly broader without a recitation of

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the relaxed circumferential length of the closed loop waist elastic system than they would be if a relaxed circumferential length were recited, that does not make the claims indefinite.

35 U.S.C. § 112, First Paragraph

We will also not sustain the examiner's rejection of claims 1, 3 through 7, 9 through 13, 15 through 19, 21 through 26 and 28 through 36 under 35 U.S.C. § 112, first paragraph.

An analysis of whether the claims under appeal are supported by an enabling disclosure requires a determination of whether that disclosure contained sufficient information regarding the subject matter of the appealed claims as to enable one skilled in the pertinent art to make and use the claimed invention. The test for enablement is whether one skilled in the art could make and use the claimed invention from the disclosure coupled with information known in the art without undue experimentation. See United States v. Telectronics, Inc., 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988), cert. denied, 109 S.Ct. 1954 (1989); In re Stephens, 529 F.2d 1343, 1345, 188 USPQ 659, 661 (CCPA 1976).

In order to make a rejection, the examiner has the initial burden to establish a reasonable basis to question the enablement

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provided for a claimed invention. See In re Wright, 999 F.2d 1557, 1561-62, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993) (examiner must provide a reasonable explanation as to why the scope of protection provided by a claim is not adequately enabled by the disclosure). A disclosure which contains a teaching of the manner and process of making and using an invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as being in compliance with the enablement requirement of 35 U.S.C. § 112, first paragraph, unless there is a reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support. Assuming that a sufficient reason for such doubt exists, a rejection for failure to teach how to make and/or use will be proper on that basis. See In re Marzocchi, 439 F.2d 220, 223, 169 USPQ 367, 369 (CCPA 1971). As stated by the court, "it is incumbent upon the Patent Office, whenever a rejection on this basis is made, to explain why it doubts the truth or accuracy of any statement in a supporting disclosure and to back up assertions of its own with acceptable evidence or reasoning which is inconsistent with the

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contested statement. Otherwise, there would be no need for the applicant to go to the trouble and expense of supporting his presumptively accurate disclosure." In re Marzocchi, 439 F.2d at 224, 169 USPQ at 370.

With this as background, we turn to the specific rejection under 35 U.S.C. § 112, first paragraph, made by the examiner of the claims on appeal. The examiner's statement of this rejection (answer, pp. 3, 4) is as follows:

The testing procedures fail to account for length (circumference) of the waist elastic system. As described by appellant, the test involves removing the waist elastic system from the absorbent pant. The waist system is then stretched between a top peg and bottom peg. For example, a large waist system having a circumference equal to 100,000 mm (possibly for adults) is stretched 300 mm over three cycles. This equates to stretching the system 0.6% its length; this would produce little or no stress in the elastic member. Therefore, little decay would probably occur. However, a small system having a 10,000 mm elastic member (possible for children) extended 300 mm or 6% of its length (length = 1/2 the circumference) would produce greater stress and greater decay in the waist system while using the same test procedures. No recitation of the length makes the test indefinite. (emphasis in original)

The examiner's statement that the lack of any recitation of length makes the test indefinite, indicates to us that the examiner has confused the requirement of 35 U.S.C. § 112, second

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paragraph, that the claims particularly point out and distinctly claim the invention, with the requirement of 35 U.S.C. § 112, first paragraph, that the specification describe how to make and use the invention. While we recognize that the claims do not require the closed loop waist elastic system to be any particular length, we fail to understand why the specification is not enabling as a result. A claim which omits matter disclosed to be essential to the invention as described in the specification or in other statements of record may be rejected under 35 U.S.C. 112, first paragraph, as not enabling. Mayhew, id. Such essential matter may include missing elements, steps or necessary structural cooperative relationships of elements described by the applicant as necessary to practice the invention. However, in this case, the appellants have not omitted any matter from the claims under appeal disclosed to be essential to the invention as described in the specification or in other statements of record. As set forth previously, the examiner has failed to cite any passage of the specification or in other statements of record that would establish that any essential element has been omitted from the claims under appeal.

35 U.S.C. § 103 Rejection Based On Weil

We will not sustain the rejection of claims 1, 3 through 7, 9 through 13, 15 through 19, 21 through 26 and 28 through 36 under 35 U.S.C. § 103 based on Weil.

Each of the independent claims on appeal calls for a closed-loop waist elastic system. In the final rejection (p. 7), the examiner interpreted the language "said front and said back panel being selectively joined to form a waist opening and a pair of leg openings" in the preamble of claim 1 "as utilizing fastening tabs. Therefore, Weil is interpreted as having a 'closed-loop waist elastic system.'"

The appellants argue that

Weil simply does not disclose the same structure as the present invention, in that Weil refers to a diaper that utilizes refastenable tape tabs, while the present invention relates to a training pant having a closed-loop waist opening and leg openings. The specification of the present invention clearly is directed toward pant-like garments that have a full, i.e., 360 degree, waistband and not to flat, diaper-like garments that utilize refastenable tape tabs for adjusting the fit.

Brief, p. 10.

We note the following description at page 9 of the appellants' specification

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With reference to FIG. 1, a disposable absorbent training pant 20 comprises a chassis 22 including a front panel 24, a back panel 26, a crotch panel 28, a waist opening 30, and a pair of leg openings 32. Openings 30, 32 are formed by selectively joining portions of front panel 24 and back panel 26 at side seams 34, which extend between waist opening 30 and a respective leg opening 32. Each side seam 34 can be formed in any suitable manner, such as by ultrasonic bonding, thermal bonding, adhesive bonding, or the like. A waist border 36 peripherally surrounds waist opening 30, and is formed upon joining front panel 24 and back panel 26 at seams 34.

When read in light of the underlying specification, we cannot agree that "selectively joined" in claim 1 embraces the use of fastening tabs to join front panel 24 and back panel 26 at side seams 34. At any rate, the language referred to by the examiner concerns the joining of the front and back panels of the training pant chassis 22, not the separate waist elastic system 60. Thus, we agree with the appellants that Weil does not teach or suggest a closed-loop elastic waist system. Since all of the claim limitations are not taught or suggested by Weil, the examiner has not established the prima facie obviousness of the claimed invention. In re Royka, 490 F.2d 981, 985, 180 USPQ 580, 583 (CCPA 1974).

35 U.S.C. § 103 Rejection Based On Ales and Weil

We will sustain the rejection of claims 1, 3 through 7, 9 through 13, 15 through 19, 21 through 26 and 28 through 36 under 35 U.S.C. § 103 based on Ales and Weil.

The appellants have grouped claims 1, 3 through 7, 9 through 13, 15 through 19, 21 through 26 and 28 through 36 as standing or falling together. See brief, p. 3. In accordance with 37 CFR § 1.192(c)(7), we have selected claim 1 as the representative claim and will decide this ground of rejection on the basis of that claim.

The examiner describes Ales as disclosing the invention substantially as claimed, including a closed-loop elastic waist system for a disposable panty for infants and adults. See answer, p. 5. The examiner also describes Ales as teaching, at col. 13, ll. 51-57, the same materials as the appellants for the elastic member, including natural rubber. Id. The examiner acknowledges that Ales is silent as to the maximum magnitude of decay over the first three cycles.

The examiner describes (answer, pp. 6 and 7) Weil as teaching that

. . . elastic materials in an elastic waist system undergoing sustained stress/strain (extension/contraction) have diminishing forces with time (i.e. elastic creep). Therefore, it is desired to make sure this reduction in wearing forces over time doesn't fall below a minimum for wearing stability. The elastic creep (decay) should be kept to a minimum. See column 34, lines 51 et seq. (Weil et al further teaches the waist elastic system should not have insufficient contractive forces that result in the diaper slipping down after being worn and loaded. In contrast, excessive contractive forces may reduce the comfort for the wearer producing pressure markings on the wearer's skin. See column 34, lines 20 et al. [sic: et seq.]) (emphasis in original)

The examiner then concluded (answer, p. 7) that

[i]t would have been obvious to one having ordinary skill in the art to have utilized the concept of keeping the elastic decay to a minimum as taught by Weil et al with the closed-loop waist elastic system of Ales et al to maintain the functional integrity of the waist system over repeated cycling.

In regards to the specific claimed decay values, it would have been obvious to one having ordinary skill in the art to have kept this value to a minimum. Also, lacking any criticality in the specification, the use of the claimed "decay" values in lieu of those used in the references solves no stated problem and would have been an obvious matter of design choice within the skill of the art.

The appellants' argue that neither Ales nor Weil provides any description or suggestion regarding the decay of the elastic waistband over a number of cycles and that it is improper for the examiner to combine the concept of Weil with the teaching of Ales. We are not persuaded by this argument because Weil does,

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in fact, recognize that for wearing stability the decay of the elastic waistband over a number of cycles, which the reference refers to as elastic creep, should be kept to a minimum. See Weil, col. 3, ll. 51-59.

Also, the appellants describe Ales and Weil as lacking any teaching with respect to the problem addressed by the appellants' invention and argue that the failure of the art to address the problem of elastic decay should be taken into account when deciding whether the references can be combined under 35 U.S.C. § 103.

This argument is not persuasive since the "[m]ere recognition of latent properties in the prior art does not render nonobvious an otherwise known invention" (In re Baxter Travenol Labs, 952 F.2d 388, 392, 21 USPQ2d 1282, 1285 (Fed. Cir. 1991)) and "[t]he fact that appellant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise have been obvious" (Ex parte Obiaya, 227 USPQ 58 (Bd. Pat. App. & Int. 1985)), aff'd.mem., 795 F.2d 1017 (Fed. Cir. 1986)). Moreover, "[a]s long as some motivation

or suggestion to combine the references is provided by the prior art taken as a whole, the law does not require that the references be combined for the reasons contemplated by the inventor" (In re Beattie, 974 F.2d 1309, 1312, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992)) and all the benefits of the claimed invention need not be explicitly disclosed to render the claim unpatentable under § 103 (see In re Dillon, 919 F.2d 688, 692, 696, 16 USPQ2d 1897, 1901, 1904 (Fed. Cir. 1990) (in banc), cert. denied, 500 U.S. 904 (1991)). As to the appellants' reliance on Wright,⁶ we must point out that, to the extent that this decision was inconsistent with Dillon, it was expressly overruled (see Dillon at 919 F.2d 692, 16 USPQ2d 1901).

In the present case, Weil clearly teaches that hysteresis loss of the elastic materials used in the elastic waistband of a diaper should not be so great that the contractive force is low enough to allow sagging/slipping of the diaper on the wearer (see col. 34, ll. 48-50) and that for wearing stability elastic creep should be kept to a minimum (see col. 34, ll. 51-59). Based on

⁶ In re Wright, 6 USPQ2d 1959 (Fed. Cir. 1988), cited at page 11 of the brief.

these teachings in Weil, it is our opinion that it would have been obvious to a person of ordinary skill in the art prior to the appellants' invention to minimize the hysteresis loss and the elastic creep of the elastic material used to produce the closed-loop waistband disclosed in Ales.

Further, it is beyond question that the closed-loop waist elastic system suggested by the combined teachings of Ales and Weil would have had some measurable magnitude of decay over three cycles, just as samples 1 to 7 described in the appellants' specification had a measurable magnitude of decay over three cycles. The only difference between the prior teachings and claim 1 is that claim 1 call for a maximum magnitude of decay over three cycles of less than 76.98 grams. However, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). As the court stated in In re Woodruff, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990)

[n]or can patentability be found in the difference in ... ranges recited in the claims. The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims....These cases have consistently held that in such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range...(obviousness determination affirmed because dimensional limitations in claims did not specify a device which performed and operated differently from the prior art).... [Emphasis in original; citations omitted.]

Here, however, the appellants have made no persuasive showing that the provision of "a maximum magnitude of decay of less than about 76.98 grams in an extension range of about 300 millimeters over the first three cycles" is in any way critical or is anything which would be unexpected.

The rejection of claim 1 under U.S.C. § 103 will therefore be sustained, as will the rejection of claims 3 through 7, 9 through 13, 15 through 19, 21 through 26 and 28 through 36, grouped therewith.

NEW GROUNDS OF REJECTION

In accordance with our authority under 37 CFR § 1.196(b), this panel of the board introduces the following new grounds of rejection.

Claims 1, 3 through 7, 9 through 13, 15 through 19, 21 through 26 and 28 through 36 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The scope of enablement must bear a "reasonable correlation" to the scope of the claims (see, e.g., In re Fisher, 427 F.2d 833, 839, 166 USPQ 18, 24 (CCPA 1970)) and "the specification must teach those skilled in the art how to make and use the full scope of the claimed invention without 'undue experimentation'" (In re Wright, 999 F.2d 1557, 1561, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993)).

All of the claims call for a maximum magnitude of decay over three cycles which is "less than about" a specified number of grams at a specified extension. Thus, the range in each claim includes zero grams at the specified extension. However, the appellants' specification only provides two working examples, i.e., Embodiment 1 in which the elastic member is joined to the sleeve member at the seams 34 and Embodiment 2, similar to Embodiment 1, except that the elastic member is intermittently

joined to the elongate sleeve member by a pattern of 1.27 centimeter (0.5 inch) wide adhesive zones separated by 1.27 centimeter wide zones with no adhesive. Referring to Tables 1 and 13 in the appellants' specification, closed-loop waist elastic systems constructed according to the teachings of Embodiment 1, had a maximum magnitude of decay of less than about 59.18 grams in an extension range of about 300 millimeters over the first three cycles while closed-loop waist elastic systems constructed according to the teachings of Embodiment 2 had an average maximum magnitude of decay of less than about 76.98 grams in an extension range of about 300 millimeters over the first three cycles. There are no examples in the appellants' specification illustrating how one would make a closed-loop waist elastic system having a maximum magnitude of decay in an extension range of about 300 millimeters over the first three cycles of zero (0) grams or 25 grams or of any number of grams less than 59.18 grams. In some cases involving predictable factors, a single embodiment provides broad enablement in the sense that, once imagined, other embodiments can be made without difficulty and their performance characteristics predicted by resort to known scientific laws. The scope of enablement

obviously varies inversely with the degree of unpredictability of the factors involved. In this case, involving unpredictable factors, such as the effect on decay of (1) the material used to make the elastic elements, (2) the spacing of the bond areas between the sleeve and the elastic elements, (3) the total area of all bond areas between the sleeve and the elastic elements, (4) the cross sectional dimensions of the elastic member, and (5) the material used to make the sleeve, we must conclude that the scope of enablement of the specification does not bear a "reasonable correlation" to the scope of the claims.

Claims 1, 3 through 7, 9 through 13, 15 through 19, 21 through 26 and 28 through 36 are rejected under 35 U.S.C. § 103(a) as unpatentable over the prior art described in the appellants' specification in view of Weil.

According to the appellants, samples 1 through 7, described at pages 15-16 of the specification, "were commercially purchased in late 1994 or early 1995" (see specification, p. 16). Thus, samples 1 through 7 constitute prior art under at least 35 U.S.C. § 102(a).

The differences between the prior art, i.e., samples 1 through 7, and the claims at issue is the decay of the elastic

waistband over a number of cycles. For example, claim 1 requires the closed loop waist elastic system to have a maximum magnitude of decay of less than about 76.98 grams in an extension range of about 300 millimeters over the first three cycles while the maximum magnitude of decay for the same range of sample 1-7 varies from about 151-840 grams. See specification, p. 30. Claim 19 requires the closed loop waist elastic system to have a maximum magnitude of decay of less than about 65.41 grams in an extension range of about 225 millimeters over the first three cycles while the maximum magnitude of decay for the same range of sample 1-7 varies from about 82-556 grams.

The pertinent teachings of Weil are described above. Based on those teachings, it is our opinion that it would have been obvious to a person of ordinary skill in the art prior to the appellants' invention to minimize the hysteresis loss and the elastic creep of the elastic material used to produce the closed-loop waistband disclosed in sample 1-7. As such, it would not have been inventive prior to the appellants' invention to discover the optimum or workable ranges by routine experimentation. In re Aller, supra; In re Woodruff, supra.

CONCLUSION

The decision of the examiner to reject claims 1, 3 through 7, 9 through 13, 15 through 19, 21 through 26 and 28 through 36 under 35 U.S.C. § 112, first and second paragraphs, is reversed.

The decision of the examiner to reject claims 1, 3 through 7, 9 through 13, 15 through 19, 21 through 26 and 28 through 36 under 35 U.S.C. § 103 over Weil is reversed.

The decision of the examiner to reject claims 1, 3 through 7, 9 through 13, 15 through 19, 21 through 26 and 28 through 36 under 35 U.S.C. § 103 over Ales in view of Weil is affirmed.

Additionally, this panel of the board has introduced new grounds of rejection pursuant to 37 CFR § 1.196(b).

Since at least one rejection of each of the appealed claims has been affirmed, the decision of the examiner is affirmed.

In addition to affirming the examiner's rejection of one or more claims, this decision contains new grounds of rejection pursuant to 37 CFR § 1.196(b) (amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63, 122 (Oct. 21, 1997)). 37 CFR § 1.196(b) provides that "[a] new ground of rejection shall not be considered final for purposes of judicial review."

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Regarding any affirmed rejection, 37 CFR § 1.197(b) provides:

(b) Appellant may file a single request for rehearing within two months from the date of the original decision. . . .

37 CFR § 1.196(b) also provides that the appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of proceedings (37 CFR § 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .


Should the appellants elect to prosecute further before the Primary Examiner pursuant to 37 CFR § 1.196(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.


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If the appellants elect prosecution before the examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED
37 CFR 1.196(b)


HARRISON E. McCANDLISH
Senior Administrative Patent Judge


NEAL E. ABRAMS
Administrative Patent Judge

JOHN F. GONZALES
Administrative Patent Judge

BOARD OF PATENT
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